REMARKS

Favorable reconsideration and allowance of the present application are respectfully requested in view of the foregoing amendments and the following remarks.

Claims 51-67, including independent claim 51, are currently pending in the present application. Independent claim 51, for instance, is directed to a diffraction-based assay device for detecting the presence of an analyte. The device includes a substrate that comprises a polymer film and an optional metal coating, wherein a binder is present on the substrate in a pattern. The fluidic guide is in direct communication with the substrate, and includes at least one channel through which a fluid sample is capable of flowing via capillary action. The device also includes a wicking agent that is capable of receiving the fluid sample from the fluidic guide and thereafter facilitating contact of the fluid sample with the binder on the substrate. Further, the device includes an electromagnetic radiation source that is configured to direct electromagnetic radiation to the substrate for generating a diffraction pattern.

In the Office Action, previous independent claims 27, 42, and 48 were rejected under 35 U.S.C. § 102(b) in view of U.S. Patent Nos. 5,872,713 to Douglas, et al.; 6,162,639 to Douglas; 6,066,448 to Wohlstadter, et al.; or 6,069,268 to Inbar. Applicants respectfully submit, however, that none of the cited references disclose each limitation of the present claims. Wohlstadter, et al., for instance, is directed to an electrochemiluminescent assay that is performed using a plurality of discrete binding domains that are spatially aligned with one or more electrodes. The binding domains may be formed using one or more microfluidic guides. As an example, in Figs. 22A and 22B, microfluidic guides 2201 are shown for delivering drops of the binding reagents to

a fibril mat 2200. However, such microfluidic guides do not deliver the fluid test sample to the substrate as required by the present claims. In any event, Wohlstadter, et al. fails to disclose other aspects of the present claims, such as a wicking agent that is capable of receiving the fluid test sample from the fluidic guide and thereafter facilitating contact of the fluid sample with the binder on the substrate.

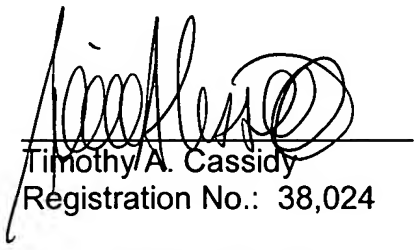
Likewise, Douglas, et al., Douglas, and Inbar also fail to disclose certain aspects of the present claims. For example, Douglas, et al. describes a test system that includes a test strip 11 that is inserted into a test instrument 21. (See e.g., Figs. 2-3). As shown in Fig. 8, the instrument 21 may include an LED emitter 50 and a photodetector 51 that measures reflected light from the sample. The reflected light is proportional to the amount of analyte. Contrary to the present claims, however, Douglas, et al. does not disclose a *diffraction-based* device in which the substrate comprises a polymer film optionally containing a metal coating and an electromagnetic radiation source that is configured to direct electromagnetic radiation to the substrate for generating a diffraction pattern. Applicants note that the claimed fluidic guide and wicking agent are particularly useful in such diffraction-based systems for facilitating the transfer and distribution of the fluid sample to the patterned binder. Douglas and Inbar likewise fail to disclose the diffraction-based device of the present claims. Thus, for at least the reasons set forth above, Applicants respectfully submit that the present claims patentably define over the above-cited references.

It is believed that the present application is in complete condition for allowance and favorable action, therefore, is respectfully requested. Examiner Alexander is invited

and encouraged to telephone the undersigned, however, should any issues remain after consideration of this Amendment.

Please charge any additional fees required by this Amendment to Deposit Account No. 04-1403.

Respectfully submitted,
DORITY & MANNING, P.A.



Timothy A. Cassidy
Registration No.: 38,024

DORITY & MANNING, P.A.
P.O. Box 1449
Greenville, SC 29602-1449
Phone: (864) 271-1592
Facsimile: (864) 233-7342

Date: 9/19/05